

Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed**1.1. Name of the Data, data collection Project, or data-producing Program:**

2006 South Carolina DNR Lidar: Aiken County

1.2. Summary description of the data:

The LiDAR data acquisition was executed in five sessions, on March 15, 16 & 17, 2006, using a Leica ALS50 LiDAR System. Specific details about the ALS50 system are included in Section 4 of this report.

The three airborne GPS (ABGPS) base stations supporting the LiDAR acquisition were located on 1) a NGS SAC monumented control point inside Bush Field Airport (AGS), point AA2799, 2) a point inside the county "RS_0001" and 3) a another point nearby "RS_0002". Dual Frequency data was logged continuously for the duration of each LiDAR flight mission at a one-second sampling rate. A table of control points for the LiDAR survey is included in Section 5 of this report.

The flight plan for LiDAR consisted of parallel flights in a north-east/south-west extent across the site (see Figure B, LiDAR Flight Layout). Sixty-three (63) flight lines of LiDAR data were acquired in 5 sessions along with 1 cross flight across the County.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2006-03-15 to 2006-03-17

1.5. Actual or planned geographic coverage of the data:

W: -82.02736778246, E: -82.01657545315, N: 33.47824781015, S: 33.45789825258

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
las

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys,

enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:

NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:

coastal.info@noaa.gov

2.5. Phone number:

(843) 740-1202

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

3.2. Title:

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

- 2006-03-01 00:00:00 - The LiDAR data acquisition was executed in five sessions, on March 15, 16 & 17, 2006, using a Leica ALS50 LiDAR System. Specific details about the ALS50 system are included in Section 4 of this report. The three airborne GPS (ABGPS) base stations supporting the LiDAR acquisition were located on 1) a NGS SAC monumented control point inside Bush Field Airport (AGS), point AA2799, 2) a point inside the county "RS_0001" and 3) a another point nearby "RS_0002". Dual Frequency data was logged continuously for the duration of each LiDAR flight mission at a one-second sampling rate. The LiDAR data was acquired using 2 ALS50's onboard 2 Cessna T404's. The ALS50 LiDAR system, developed by Leica Geosystems of Boston, Massachusetts, includes the simultaneous first, intermediate and last pulse data capture module, the extended altitude range module, and the target signal intensity capture module. The system software is operated on a P-400 Diagnostic System Laptop Computer aboard the aircraft. Woolpert performed ABGPS surveying during the LiDAR mission to derive the flight trajectory at a half-second interval. ABGPS is a critical factor in LiDAR data collection. As such, we spent considerable time developing flight windows around the satellite constellation. We also developed multiple base stations to provide redundancy and to reduce ionospheric and atmospheric errors due to distance separation between the aircraft and the base stations. At a minimum, two base stations were in operation for every LiDAR acquisition session, operating at a half-second sampling rate. Final adjusted control point values were used to process the LiDAR data. The survey report includes extensive data about the procedures and results for the ground control survey. As a continuing quality control measure, data was downloaded each evening in the field to verify a strong GPS solution and then refined in-house to determine final trajectories. A base-station control survey was performed to provide uniformity and to ensure consistency between the ground control and Airborne GPS. All ground control surveys were performed to achieve accuracies consistent with a second-order, class I horizontal (meets or exceeds 1:50,000) and third-order vertical survey as outlined in Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques, Version 5.0, of August 1, 1989, published by the Federal Geodetic Control Committee (FGCC). For additional information please view the survey report:https://coast.noaa.gov/htdata/lidar1_z/geoid18/data/4822/supplemental/sc2006_DNR_aiken_m4822surveyreport.pdf

- 2006-11-29 00:00:00 - URS provided Woolpert 843 polygons indicating areas to be corrected. In response, Woolpert provided an ESRI shapefile that identifies 3 categories: CORRECTED, EDIT-UNNEEDED and SWAMP_TREE_AREA. Of the 843 edit areas provided by URS, Woolpert corrected 683 and left 160 unchanged based on review and/or inclusion of breaklines. Woolpert resubmitted the LiDAR data to URS on Sept 14, 2006. On October 4, 2006 Woolpert received comments from URS that

additional editing was still required. Woolpert agreed to review all the bridge locations within the detailed study area and make the appropriate corrections. Woolpert then resubmitted the LiDAR data on November 4, 2006 and it was accepted on November 29, 2006.

- 2015-02-21 00:00:00 - The NOAA Office for Coastal Management (OCM) received the files in laz format from SCDNR via an FTP online repository. The files contained lidar elevation and intensity measurements. The data were in State Plane, NAVD88 (orthometric) heights in meters. OCM performed the following processing for data storage and Digital Coast provisioning purposes: 1. The data were converted from state plane coordinates to geographic coordinates. 2. The data were converted from NAVD88 (orthometric) heights in meters to GRS80 (ellipsoid) heights in meters using Geoid 09. 3. The LAS data were sorted by latitude and the headers were updated.

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
 - 7.1.1. If data are not available or has limitations, has a Waiver been filed?
 - 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:**6.3. URL of metadata folder or data catalog, if known:**

<https://www.fisheries.noaa.gov/inport/item/49958>

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

NOAA Office for Coastal Management (NOAA/OCM)

7.2.1. If data hosting service is needed, please indicate:**7.2.2. URL of data access service, if known:**

<https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=4822>
https://coast.noaa.gov/htdata/lidar1_z/geoid18/data/4822

7.3. Data access methods or services offered:

This data can be obtained on-line at the following URL:

<https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=4822>

The data set is dynamically generated based on user-specified parameters.;

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):

Office for Coastal Management - Charleston, SC

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.